* SWBAT use the momentum equation to solve word problems

Sep 6-2:31 PM

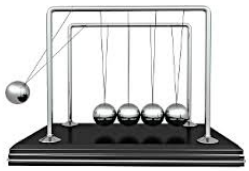
SECA Physics
Thursday 5 December 2013

Welcome!!!

H. Leslie Grebe

* Pick up:
  - whiteboard, marker, eraser
  - slip of paper (for later)

Centering...



Opening Question:

Where do you hear the word "momentum" in everday life?

Sep 7-7:04 AM

CPP:

Momentum is...

INERTIA IN MOTION

MOMENTUM = MASS x VELOCITY

MOM. = m · v

Bowling ball has a mass of 3 kg and is rolling at 1 m/s. What is its momentum?

MOM. = m · v = 3 kg · 1 m/s = 3 $\frac{kg \cdot m}{s}$

A ping pong ball has a much smaller mass, let's say .01 kg (that's 10 grams). If it's going 100 m/s, what is its momentum?

mom. = m · v = .01 kg · 100 m/s

= 1 $\frac{kg \cdot m}{s}$

mom. = 500 $\frac{kg \cdot m}{s}$

v = 0.5 m/s

m = ?

$v = \frac{mom.}{m} = \frac{500 \frac{kg \cdot m}{s}}{0.5 \frac{m}{s}} = 1000 kg$

Truck: 1000 kg sitting still
Skateboard: 1 kg rolling at 5 m/s

Which has more mass? Which has more velocity?

Which has more momentum? SKATEBOARD

Dec 7-7:51 AM

Fire extinguisher skateboard

OAS Homemade Heroes #11

What is a physics term used to explain it?

Definition?

What is another example of this that we've encountered?

Dec 5-9:21 AM

Daily 3 Questions

CP Hmwk for Friday:
Worksheet #5

* Every day except test/project days
* 3 Questions on the topics of the day
* Main source of daily points
* I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your NAME!!!

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1. What is the momentum of a bowling ball that has a mass of 3 kg and is rolling at 1 m/s?

3 $\frac{kg \cdot m}{s}$

2. Which has more momentum: A large truck sitting still or a skateboard moving slowly?

3. Bernie, whose mass is 70 kg, leaves a ski jump with a velocity of 20 m/s. What is Bernie's momentum?

1400 $\frac{kg \cdot m}{s}$

Dec 2-7:55 AM